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NOTES ON SOME OF THE RARER BIRDS OF MASSACHUSETTS.

BY J. A. ALLEN.

(Continued from page 585.

BAIRD'S SPARROW. *Centronyx Bairdii* Baird. Mr. C. J. Maynard while collecting Long-spurs and Snow Buntings on the Ipswich sand-hills, December 4th, 1868, had the good fortune to shoot the first specimen* of this species thus far obtained east of the Missouri, so far as known. No other at least is yet on record, and but one other specimen seems to be extant. This is one of Audubon's types collected near the mouth of the Yellowstone, in the summer of 1843, and now in the Museum of the Smithsonian Institution. Mr. Audubon is the only naturalist who has previously met with it. He reports it as common at the locality where he discovered it, where he obtained both males and females and its nest.† But very little is known respecting its migrations or its distribution. Its discovery in Massachusetts was quite unlooked for. Mr. Maynard thinks he saw others, but supposing it to be some other species he made no especial efforts to obtain them. In his notes kindly communicated to me he remarks: "I saw other specimens, and am confident that I detected it the preceding season, 1867. It is probable that it is a regular winter visitor from the north, accompanying the *C. Lapponicus* and *P. nivalis*, for it does not seem probable that it should occur regularly so far from its usual habitat—the distance being some over sixteen hundred miles—and not be found in the intermediate space." As he further observes, his specimen somewhat resembles the Bay-winged Sparrow (*Pooecetes gramineus*), with which inexperienced ornithologists might easily confound it. It is

* Mr. Maynard gives a good figure of this specimen in his book on Taxidermy ("Guide to Naturalists in Collecting and Preserving Objects of Natural History") now publishing.

† Birds of America, Vol. vii, p. 359, pl. 500.

certainly nearer this than the Savannah Sparrow, with which it has been compared. "My specimen," he says, "also differs in size [from Audubon's*]. I give measurements of both for comparison, remarking that mine was measured from the fresh bird, while the other was from the skin."

LOCALITY.	Date.	Length.	Alar ext.	Wing.	Tail.	Bill.	Tarsus.	Sex.
Mouth of Yellowstone.	1843	4.64	—	2.77	2.10	.39	.84	—
Ipswich, Mass.,	Dec. 4, 1868.	6.30	11.00	3.25	2.60	.40	.95	♂

It differed in color as well as in size from the specimen described by Prof. Baird. The former difference is doubtless due to the different seasons of the year at which they were collected, and the latter to the fact of the Ipswich specimen having a more northern birth-place. That there might be no mistake, the specimen was transmitted to Professor Baird for examination, who kindly compared it with the type in the Smithsonian Institution, and reports that he found them identical.

SAVANNAH SPARROW. *Passerculus savanna* Bon. Rather rare in the interior at all seasons, and, so far as I can learn, only seen there during its migrations. On the coast, however, it is one of the most common sparrows throughout the summer, where great numbers breed. I have seen it from Ipswich southward all along the coast to Nantucket Island. On the islands off the coast it is often the most numerous species of bird. The Song Sparrow, on the contrary, is more numerous in the interior, it being comparatively scarce on the islands and on the coast close to the sea.

HENSLOW'S SPARROW. *Coturniculus Henslowii* Bon. This species must still be considered a rare summer visitor, though it proves to be more common than was supposed a few years since. Specimens are taken in the eastern part of the state nearly every year, where also several of its nests

* See Baird's Birds of North America, p. 441.

have been found. The first nest found in this state was discovered by Mr. E. S. Wheeler, in Berlin, and the fact is recorded in the seventh volume of the Proceedings of the Boston Society of Natural History (page 137). This species was at first wrongly identified as *Peucea Backmanii* Aud (= *P. æstivalis* Baird), and as such stands recorded in the sixth volume of the same Proceedings (p. 21). The mistake was corrected, however, on p. 74 of the same volume, so that *Peucea æstivalis* has never been included nor referred to as a bird of Massachusetts in any of the lists of the birds of the state, or of New England.

In respect to *C. Henslowii*, Mr. Maynard informs me it has been confounded with *C. passerinus* by a number of collectors, and that it seems to be more common at some localities in the state than the latter.

WHITE-CROWNED SPARROW. *Zonotrichia leucophrys* Sw. Rare in all parts of the state, and thus far not known to breed in Massachusetts, though it may do so among the mountains in the western counties. Though mentioned by Dr. Coues as "usually common, but of somewhat irregular occurrence" in New England,* the score or more of collectors with whom I am acquainted all look upon it as one of our rarest species in Massachusetts. Some have never met with it. More to the westward, however, it is quite common. In Wayne county, New York, I found it as numerous in May, 1867, as the White-throated Sparrows usually are in New England.

WHITE-THROATED SPARROW. *Zonotrichia albicollis* Bon. A pair of these birds, probably the same pair, has been observed by Mr. R. B. Hildreth at Springfield during the last three summers. Though he has not succeeded in discovering their nest, he this year observed them feeding their scarcely fledged young. He reports that they have become very familiar and readily answer his call. Though breeding nu-

*List of the Birds of New England, l. c. p. 282.

merously in Northern New England, Springfield is considerably south of their customary breeding range.

SHARP-TAILED FINCH. *Ammodromus caudacutus* Swain. Some half a dozen nests and as many pairs of the birds were obtained the present year, by Mr. H. W. Henshaw in the Charles River marshes in Cambridge. These are the only recent instances known to me of the finding of the nest of this species in Massachusetts. None of the Seaside Finches were observed, though they were formerly known to breed in the Chelsea marshes, and probably do still.

TREE SPARROW. *Spizella monticola* Baird. I mentioned in my Catalogue that a nest of this species was found in this state in 1855 by Mr. E. Samuels, there being a record to that effect in the fifth volume of the Proceedings of the Boston Society of Natural History (p. 213). I have since learned from Mr. E. A. Samuels that this was a case of malidentification, the nest and eggs being really those of the Chipping Sparrow (*Spizella socialis*). Dr. Brewer confirms the latter account, and says he has the nest in his possession.

LINCOLN'S SPARROW. *Melospiza Lincolnii* Baird. The first record of the occurrence of this species in Massachusetts is given in my Catalogue, at which time I had taken three specimens at Springfield. It has since been taken by Mr. S. Jillson, at Hudson,—one specimen in May, 1867, and another in May, 1868. In 1867 I took it in May in Wayne County, N. Y., when it appeared to be not uncommon, and in Northern Illinois the same year I found it numerous.

SWAMP SPARROW. *Melospiza palustris* Baird. In the "Addenda" to Dr. Coues' "List of the Birds of New England" I stated I had never met with this species in the breeding season. I have since learned that it is not at all uncommon at that season at several localities in the eastern part of the state; some years it breeds quite numerously in the Fresh Pond marshes.

BLACK-THROATED BUNTING. *Euspiza Americana* Bon. Since the publication of my Catalogue, Mr. C. W. Bennett

has taken this species at Holyoke,—a single specimen in May, 1866. Dr. Brewer informs me he has found it breeding at Hingham. The species is still known, however, as only a straggler from the southward.

CARDINAL. RED BIRD. *Cardinalis Virginianus* Bon. Four specimens of this bird were taken near Springfield in October, 1866. Mr. W. H. Niles observed it at Belcher-town the last week of October, 1868, and at Southampton May 5th, 1869. As these form all the recent authentic instances of its occurrence in the state, it can only be regarded as an accidental visitor. It has been questioned whether in the previous instances of its capture here the specimens taken were not birds that had escaped from cages. In all probability they were, however, wild birds.

EUROPEAN HOUSE SPARROW. *Passer domestica* Leach. The few pairs turned loose in the Boston Common a few years since seem to be slowly increasing in numbers, and bid fair to be of great service in checking the ravages of several species of caterpillars that now greatly injure the foliage of the shade trees. These interesting birds are now frequently observable both on the Common and in the Public Garden.

EUROPEAN GOLDFINCH. *Carduelis elegans* Steph. February 28th, 1865, I saw a single male on Quincy street, Cambridge, that had probably escaped from a cage. It was feeding on the seeds of the larch and appeared fully at home. Its notes first drew my attention to it, which, while so much resembling those of our common Yellow Bird, yet differ from them in surpassing in sweetness the pleasant warble of that favorite bird. I doubt not that if a considerable number of European Goldfinches should be introduced into New England the species would soon become acclimated and generally distributed.

SERIN FINCH. *Serinus meridionalis* Brehm. A specimen of this European species was taken near Springfield in November, several years since. It may have been a cage bird that had escaped.

YELLOW-HEADED BLACKBIRD. *Xanthocephalus icterocephalus* Baird. The wings, tail and feet, of a specimen of this species taken in Watertown, in October, 1869, were shown me a few weeks since by Mr. C. J. Maynard. Although the whole bird was unfortunately not preserved, its identity could be readily determined. This is the first known instance of the occurrence of this species in New England, but Mr. Cassin* states that several have to his knowledge been taken near Philadelphia. Its usual eastern range, as ornithologists well know, is the vicinity of Chicago, it being essentially a prairie species.

BOAT-TAILED GRACKLE. *Quiscalus major* Vieill. I now seriously question the occurrence of this southern species in Massachusetts, or anywhere in New England, as even an accidental visitor. I gave it as such in my Catalogue, but a reëxamination of the evidence has led me to my present opinion. I think the cases cited by Peabody† and Linsley‡ (under *Q. baritus*) as well as that of Mr. Samuels, refer only to the common Crow Blackbird or Purple Grackle.

SPRUCE PARTRIDGE. *Canace Canadensis* Bon. The occurrence of this northern species in the hemlock woods of Gloucester in 1851 was recorded by Mr. F. W. Putnam.¶ This instance is cited in my own Catalogue, and by Dr. Coues in his "List of the Birds of New England." A second instance is to be now added, as I have learned from Mr. S. C. Martin that a bird of this species was shot in November, a few years since, in Roxbury. These two instances seem to be all thus far known, and only give it a place on our list as a very rare, accidental visitor. I have, however, recently learned from Mr. Wm. Brewster, of its capture near Portland, Maine, in the autumn of 1868,—a locality much south of its usual range.

* Proc. Phila. Acad. Nat. Sci., Vol. xviii, p. 11, 1866.

† Rep. on Orn. Mass., p. 285.

‡ Amer. Journ. Sci. and Arts, Vol. xlv, p. 260.

¶ Catalogue "Birds of Essex Co.," Proc'd's Essex Inst., Vol. i, p. 224.

The Ptarmigan (*Lagopus albus*), captured at Manchester in May, 1859,* is supposed, Dr. Coues states, "to have been brought alive from Labrador or Newfoundland, and escaped."†

GREAT WHITE HERON. *Herodias egretta* Gray. To the previously recorded instances of the capture of this beautiful southern Egret in this state may be added the following. Two immature specimens were taken near Hudson by Mr. S. Jillson in 1867, and several others seen there. A fully plumaged male was also taken in Ashland in May several years since by Mr. A. L. Babcock, and another near Lynn, by Mr. N. Vickary. New Jersey seems to be the most northern point on the Atlantic coast where these birds breed, or at which they can be considered as regular visitors, yet this species, as well as the Snowy Heron (*Garzetta candidissima*), have recently been captured in Nova Scotia.‡

LITTLE BLUE HERON. *Florida cærulea* Baird. In addition to the previously recorded instances of its occurrence in Massachusetts, Mr. Maynard informs me he has recently seen it on one or two occasions in autumn.

YELLOW-CROWNED NIGHT HERON. *Nyctherodius violaceus* Reich. Mr. N. Vickary, of Lynn, the well known taxidermist, informs me that in October, 1862, he shot a fine specimen of this bird in Lynn. Though occurring occasionally as far north along the coast as New York, I have learned of no other instance of its capture in New England.

GLOSSY IBIS. *Ibis Ordii* Bon. In addition to those previously recorded as having been captured in Massachusetts, a specimen was taken in Nantucket, September, 1869. It was also taken, as I learn from Mr. N. Vickary, in New Hampshire, in October, 1858, by Dr. Palmer.

WILSON'S PLOVER. *Ochthodromus Wilsonius* Reich. The usual northern limit reached by this bird seems to be the

* F. W. Putnam, Proc. Essex Inst., Vol. ii, p. 378.

† Ibid., Vol v, p. 289.

‡ J. Matthew Jones, Trans. Nova Scotia Inst. Nat. Sci., Vol. ii, pt. 2, p. 72 (1868).

coast of New Jersey, where it is said to breed.* In my Catalogue I inserted it as a bird of this state on the authority of Dr. Brewer, who, according to Mr. Peabody, found them abundant at Nahant in August, 1838. But Dr. Brewer wrote me under date of May 8th, 1869, that "Wilson's Plover is *not* a Massachusetts bird, so far as I know." Dr. Wood informs me that "Wilson's Plover is abundant in August on Long Island," and Mr. Linsley has recorded it from Stratford, Connecticut. It hence seems unquestionable that they sometimes occur in Southern New England, and it would not be strange if they should occasionally reach the coast of Massachusetts.†

BLACK-NECKED STILT. *Himantopus nigricollis* Vieill. Mr. G. A. Boardman informs me that he once saw two specimens of this species in Boston Market that were killed in this state. I have also learned from Mr. Maynard that it is well known to the gunners of Ipswich, who occasionally meet with it, and by whom it is ironically named "Humility." It appears to be, however, one of the rarest of our visitors, it being properly a southern and south-western species.

SANDERLING. *Calidris arenaria* Illiger. A few specimens of this species and of the Semipalmated Sandpiper (*Ereunetes pusillus* Cass.), and the Solitary Sandpiper (*Rhyacophilus solitarius* Baird), were taken by Mr. Maynard and myself at Ipswich in June, 1868. The last mentioned may have been breeding, as the Massachusetts coast is within its usual breeding range, but the others appeared to be only stragglers that were not breeding, all, apparently, being immature birds. The first of these is well known to breed on the coast of Maine, where Prof. Verrill gives it as abundant in summer. In some notes hastily penned for Dr. Coues' "Addenda" to his "List of the Birds of New England," written from memory (at the time of writing them I was on

* Dr. C. C. Abbott, Geology of New Jersey, Appendix.

† Compare with this Dr. Coues' remarks on this species in his "List of the Birds of New England," l. c., p. 291.

a journey and my notes were inaccessible), I state that *Actodromas Bonapartei* was among the birds seen by us in summer on the Massachusetts coast. This I think is an error of memory, as I do not find it recorded in my note book, and no specimens of it were taken. *Arquatella maritima* is also there mentioned as having been seen; though this is probable, I should add that it does not rest on positive evidence, as none were taken.

STILT SANDPIPER. *Micropalama himantopus* Baird. As this southern species has been twice taken recently at Rye Beach, New Hampshire, by Mr. William Brewster, the question as to whether it should be included among the birds of New England is now settled. As it must have passed through Massachusetts, it is properly to be included in our list, though not yet recorded as actually taken in this state.

YELLOW RAIL. *Porzana Novæboracensis* Cass. Taken by Mr. C. J. Maynard, September 8th, 1868, in a dry field in Newton.

COMMON GALLINULE. *Gallinula galeata* Bon. I learn from Mr. Ruthford Deane of Cambridge that he shot a young bird of this species in Fresh Pond on the 3d of September, 1868, and saw two others in the latter part of the same month. The 9th of October of the same year he informs me his friend William Brewster shot one which he obtained, and wounded another, at the same locality. Also that the latter observer saw an old bird there on the 3d of June, which Mr. Deane believes to have been the parent of these young. As this species regularly breeds in New Jersey, it is not improbable that straggling pairs may now and then rear their young in Massachusetts, but this is much beyond its usual breeding range.

CANVAS-BACKED DUCK. *Aythya vallisneria* Bonap. It is stated in my Catalogue that this species was taken near Springfield by Dr. Wood. This proves to be an error, as Dr. Wood has since informed me he never knew it taken nearer that locality than ten miles above the mouth of the

Connecticut. So far as I have been able to learn by careful inquiry, this species is much less common in New England than several authors represent. It seems to be but an accidental or very rare visitor.

AMERICAN WHITE PELICAN. *Pelecanus erythrorhynchus* Gmelin. I learn from Mr. S. C. Martin that a flock of thirteen individuals visited Nantucket Island during a heavy storm a few years since. After being repeatedly fired at one of them was finally killed, near Brant Point light-house. Mr. C. J. Maynard also informs me that several were seen at Ipswich at about the same time. The only other recent instance of the capture of this species in New England seems to be that at Calais, Maine, given by Mr. G. A. Boardman.* It seems to be entirely accidental here now, although formerly, according to early writers, of not unfrequent occurrence. It still ranges, however, over the greater part of the continent.

HERRING GULL. *Larus argentatus* Brünn. Although large numbers of this species spend the summer along the Massachusetts coast, I have not been able to find any breeding here. Those seen in summer are all immature birds, generally in brown plumage. Although they once unquestionably bred on our coast, none now appear to rear their young nearer than the northern part of the coast of Maine. Hence the occurrence of large numbers of immature birds in summer two hundred miles south of the nearest breeding grounds of the species is a fact of considerable interest.

Some years since Dr. Elliott Coues separated the American Herring Gull from the European, under the name of *Larus Smithsonianus*, he supposing it to differ in certain points of coloration from the European bird.† Unfortunately, these differences do not prove constant, specimens identical in every particular with the typical European *L. argentatus* of Coues occurring not unfrequently on the New

* Proc. Bost. Soc. Nat. Hist., Vol. ix, p. 130.

† Revision of the Gulls of North America, etc., Proc. F. A. N. S., June, 1862, p. 296.

England coast. As I have already called attention to this fact* I will only add that during last winter additional specimens of this character were obtained by me in Cambridge.

LAUGHING GULL. *Chræcocephalus atricilla* Lawr. This bird now breeds on the Massachusetts coast very sparingly, it having been nearly extirpated by the incessant persecution it suffers from "egggers" during the breeding season. A few pairs were observed last year on Muskeget Island, by Mr. Maynard and myself, and a few of its eggs obtained, about July 1st. As they had previously been repeatedly robbed, "egggers" almost constantly haunting the island, they were extremely shy. Another small colony of this species, I have learned from Mr. L. L. Thaxter, breed on the islands near Tennant's Harbor, Maine.

In my Catalogue I by some mistake gave this bird as occurring in *winter*. Though said by Mr. Boardman to be resident in the vicinity of Calais, Maine, I have as yet been unable to learn of its occurrence in this state except in summer. My earlier impression that the species was resident in Massachusetts I have since found was wrongly founded.

COMMON TERN. *Sterna hirundo* Linn. This interesting bird must soon be numbered among the species which persecution has driven from the state during the breeding season, unless some effective mode of protecting it during the breeding season is soon adopted. At present it is only found at a few localities, chiefly on Muskeget and the neighboring islets; a few only breed at different points along Cape Cod and at Ipswich. Almost everywhere they are more or less persecuted, and at Muskeget this and the other species of Terns that breed there are so systematically robbed of their eggs that if they succeed in rearing any young at all it is only after having been several times deprived of their eggs. Muskeget is a small, barren, sandy, crescent-shaped island, about two miles in length, with, in its wider part, a breadth

* Memoirs Bost. Soc. Nat. Hist., Vol. i, p. 520.

of about half a mile. Only thinly clothed with beach grass, it is naturally well suited to the breeding habits of the several species of Terns that regularly resort to it to breed. Though uninhabited by man and quite distant from large towns, the birds are far from secure there. Besides the daily visits of small eggging parties during the proper season from Nantucket and other near points, excursions are made by large parties from distant places to the island for the express purpose of participating in the novelty of an egg hunt, with sad results to the birds, as above stated. This is certainly a matter that the "Society for the Prevention of Cruelty to Animals" should look after.

ARCTIC TERN. *Sterna macroura* Naum. In company with the preceding are found a certain proportion of these birds. Last year Mr. Maynard and myself found them breeding apart from the others on the island of Muskeget. We also found them at Ipswich, as Mr. Maynard has also done the present year. In voice and habits, however, the two seem not to differ in the slightest, nor in general size. In color they only differ as young birds often do from older ones of the same species, the *S. macroura* corresponding to the mature form and the *S. hirundo* to the younger. The tarsi and the bill in *S. macroura* seemed to be generally the shorter, but not always. In color *S. macroura* was always the brighter, without the black tip of the bill seen in *S. hirundo*; the black on the head is generally more intense and better defined; the sooty wash beneath is much deeper, and the white of the rump purer. The tarsus was not only shorter but had a roughened appearance not seen in the other, they differing in the latter respect much as young birds in this and allied families frequently do from those perfectly mature. On the whole there seemed to be good reasons for believing them to be simply different ages of the same species. The young of *S. macroura* being then unknown, it was evident that the discovery of them would afford decisive evidence on the point in question. Fortunately this

year Mr. Maynard succeeded in obtaining the young of *S. macroura* at Ipswich, when they were just able to leave the nest. A comparison of these with the young of *S. hirundo* of corresponding age, or even with mature *S. hirundo*, leaves no question as to their distinctness. The differences between the young of the two are as great as between the adult. In these nestlings of *S. macroura* the color of the rump is as different from that of the back as it is in the adult, the plumbeous bluish mantle not being continued to the tail as in *S. hirundo*.

The distinctive differences then between them may be stated thus :

S. macroura has the under parts strongly tinged with plumbeous, with the throat and under tail coverts abruptly white, while in *S. hirundo* the under parts are faintly washed with plumbeous which fades gradually into white on the throat and under tail coverts. *S. macroura* has the shorter tarsi, and the shorter, smaller and more delicately shaped bill ; in color the bill of the latter is uniformly carmine, not coral red with a black tip, as in the other, and the tarsi and feet deep vermilion, almost lake (not light vermilion as in *S. hirundo*), and roughened. The rump is abruptly white at all ages, while in *S. hirundo* it is dilute plumbeous, shading gradually into the color of the back. In size and general proportions there are no essential differences between them.

So long as the young of *S. macroura* was unknown, it seemed that the differences in color between the young of *S. hirundo* and the adult of that species, if carried a little further, would result in a form, so far as color is concerned, exactly like *S. macroura*.*

ROSEATE TERN. *Sterna paradisea* Brünn. Occurs plentifully on Muskeget Island during the breeding season. Was also taken by Mr. Maynard and myself at Ipswich in June,

* For an excellent revision of the Terns of North America, see Dr. Elliott Coues' paper on this subject in the Proceedings of the Philadelphia Academy of Natural Sciences, 1862, p. 535.

1868. Heretofore generally considered rare in this state, which appears to be its northern limit.

SANDWICH TERN. *Sterna cantiaica* Gmelin. (*Sterna aculeiflava* Cabot.) Mr. Nathaniel Vickary, of Lynn, has a specimen of this species in his collection, which he shot at Chatham, in August, 1865. The usual northward range of this southern species does not extend beyond South Carolina, and is now for the first time reported as captured either in this state or in New England.

SHORT-TAILED TERN. *Hydrochelidon fissipes* Gray. Occasional, chiefly after the breeding season. Mr. C. J. Maynard has taken it at Ipswich, and probably it occurs all along the coast, though its existence here has been questioned.

SOOTY TERN. *Haliplana fuliginosa* Wagl. (*Sterna fuliginosa* Gm.) This species was given in my list as a rare summer visitor, on the authority of Mr. E. A. Samuels, who—he having found two young birds he referred to this species—informed me that it bred on Muskeget Island. As it is a southern species, and is only occasional on the coast of New Jersey, which is north of its breeding range, it is somewhat doubtful whether it is entitled to a place in a list of the birds of Massachusetts. Respecting this species Dr. Brewer has written me as follows: "It does not and never did breed on Muskeget, nor do I believe it ever comes here." Since the equally southern Sandwich Tern has been taken here, the probability of this being also an accidental visitor is increased.

GREAT AUK. *Alca impennis* Linn. This species has recently been made known as a former inhabitant of Massachusetts. Professor Wyman first discovered its remains in New England at Mount Desert, in the Indian shell-heaps.* Mr. F. W. Putnam reports that a humerus of this bird was found in August, 1868, in the shell-heaps of Ipswich, by Professor Baird.† Mr. Maynard and myself found frag-

* American Naturalist, Vol. i, p. 578.

† Coues' "Birds of New England," Proc. Essex Inst., Vol. v, p. 310, foot note.

ments of several different bones of this bird in June of the same year at the latter locality, where also Mr. Maynard had obtained them in previous years.

It appears, from information received too late to enable me to insert them in their proper places, that the following species should also be added to those already recorded from Massachusetts :

SWALLOW-TAILED HAWK. *Nauclerus furcatus* Vigors. From Mr. Bennett I have received a description of a hawk seen near Whately, not long since, that was unquestionably of this species ; but, so far as I am aware, it has not yet been taken in Massachusetts. Although a southern species, it is rather common in the interior as far north as Iowa, and stragglers have been taken along the Atlantic coast as far north as New York. It can only occur in New England, however, as an extremely rare visitor.

A South American Humming Bird, *Argytria maculata* Cab. and Heine, was taken in Cambridge in August, 1865, by Mr. Wm. Brewster. It seems almost incredible that so small a bird should wander so far from its usual haunts, since its real habitat is the northern countries of South America ; yet after carefully investigating the history of this specimen, it seems to me there is no reason to doubt its capture in this state. It is possible, of course, that it may have been brought here in a cage and have escaped, but that such was the case does not appear to be at all probable.

GRAY KING BIRD. *Tyrannus Dominicencis* Rich. A specimen of this species, now in Mr. Vickary's collection, was shot in Lynn, early in October, 1869, by Mr. Charles I. Goodale. Although essentially a West Indian species, it is not uncommon in Florida, but only occasionally ranges so far north as Charleston, South Carolina. It hence forms one of the most remarkable additions to the fauna of the state yet recorded. The specimen was evidently a young bird, or a bird of the year.

The following facts also came to hand too late to be inserted in their proper connection :

BLACK VULTURE. *Cathartes atratus* Less. Mr. S. Jillson informs me that a specimen of this species was killed in Hudson a short time since, and that several others were seen there which no one cared to shoot. Mr. G. A. Boardman has also recently taken it near Calais, Maine.* Though rather more southern in its distribution than its near relative the Turkey Buzzard (*C. aura*), it seems to be much more frequently met with in New England, and has been taken as far north as Nova Scotia.

BARN OWL. *Strix pratincta* Bon. A specimen of this species, Mr. Vickary informs me, was taken in Lynn six years since, by Mr. James Teal, and is still in a private collection in that town. This forms the second specimen of this species thus far known to have been taken in Massachusetts.

TENGMALM'S OWL. *Nyctale Tengmalmii* Bon. Mr. Vickary has a specimen of this rare winter visitor that he informs me was shot in Lynn, in 1863, by Mr. J. Southwick. I have also seen two other specimens of this bird that have been recently killed in this state.

This is the species referred to in my Catalogue as Richardson's Owl (*Nyctale Richardsonii* Bon.), which is the name of late generally given to it by American authors. It does not, however, upon comparison, appear to be distinct from the so-called Tengmalm's Owl of Europe, with which, previous to 1838, it was by all writers considered to be identical.

From information received since the first part of this paper went to press, several species whose occurrence in Massachusetts was unknown to the writer at that time (two of them having been for the first time captured here since that part of the paper was written) have been added to the

* See American Naturalist, Vol. iii, p. 498, November, 1869.

Massachusetts fauna, so that a revision of a portion of that part is already necessary.* The whole number of species is now three hundred and eight, or—excluding the House Sparrow (*Passer domestica*), which has been introduced by man, the Goldfinch (*Carduelis elegans*), the Serin Finch (*Serinus meridionalis*), and the South American Humming Bird, which may also have been (but probably were not) similarly introduced—three hundred and five, instead of three hundred, as there stated, or two hundred and ninety-six, as given in my Catalogue. Three of the species recorded in the Catalogue being now no longer counted, the whole number of species of birds added to the fauna of the state since 1864 is sixteen; eleven, and probably fifteen, of which can unquestionably be legitimately counted.

In this connection it may be asked, in view of the numerous recent additions to the bird fauna of this state: Are not certain species that were formerly regarded as scarce here now increasing in numbers? and is it not probable that some of the species recently detected have but recently made their first appearance here?

It is probable that a few species have recently increased and still are increasing in numbers; but it seems more probable that in most cases this apparent increase is more the result of the much greater number of observers now in the field than formerly, and the consequently much greater amount of attention recently given to the ornithology of our state. Doubtless other species will soon be detected here.

The occurrence of several species in Massachusetts whose

*The following corrections should be made in the first two parts of this article:—Page 512, last line, for *seven* read *twelve*. Page 512, add to the second foot note, *Buteo Cooperi*, *Tyrannus Dominicensis*, *Xanthocephalus icterocephalus*, *Nyctherodius violaceus*, *Sterna cantiaeca*. Page 513, change the sentence beginning in the ninth line to read as follows: Others now added, especially the California Hawk (*Buteo Cooperi*). Baird's Finch (*Centronyx Bairdii*), and the Gray King Bird (*Tyrannus Dominicensis*), are similar and equally remarkable cases of western and southern species straggling far beyond their usual range. Page 513, 19th line, for *specimens* read *species*. Page 513, 25th line, for *three hundred* read *three hundred and fifteen*. Page 516, 1st line, for 1862 read 1861. Page 518, 12th line, for *characteristic* read *well-marked*. Page 582, 19th line, for *frontalis* read *Californicus*. Page 583, 16th line, for *epilipes* read *exilipes*. Page 584, 2d line from bottom, for *have* read *had*. Page 585, 8th line, dele *of*.

usual range does not extend much to the eastward of the Mississippi River, and of two not usually found east of the Rocky Mountains, and of others that rarely occur north of Florida, shows the possibility of a species becoming widely diffused over districts favorable to its existence by occasional migrations.

OUR COMMON FRESH-WATER SHELLS.

BY EDWARD S. MORSE.

AMONG the most common of our fresh-water mollusks are the air-breathing water snails. Muddy lakes, ponds, streams and marshes, being their favorite abodes, and even ditches sometimes swarming with them. It would be difficult to find a body of fresh-water that did not contain certain representatives of this class.

Their shells are quite uniform in texture and color, containing but little lime, and for this reason are quite light, and even in some species slightly elastic. They are quite hardy in confinement, and a few specimens secured in early spring time will afford many pleasant hours of amusement to those interested in watching their habits. They have to come often to the surface of the water to breathe, and it is curious to watch them during this operation. The snail with its broad disk slowly sweeping along the glass, feeding at the same time by lapping up whatever particles of food it may meet with. As it nears the surface the shell is inclined in such a way that the aperture is brought almost out of water, and then a funnel-like process is opened in such a way that the air enters the respiratory cavity, while the water seems to be repelled by the edge of the funnel.

During the spring time the eggs are laid and attached to some substance by a transparent mucous. If laid upon the glass walls of an aquarium, or the sides of a glass dish,